



Patent
Attorney's Docket No. 027650-958

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of)	BOX AF
)	
Morio HARA et al.)	Group Art Unit: 1773
)	
Application No.: 08/973,416)	Examiner: K. Kruer
)	
Filed: November 14, 1997)	Confirmation No.: 6879
)	
For: RESIN COMPOSITION AND)	
LAMINATE FOR STORAGE OF)	
LIQUID FOODS)	

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APR 11 2003
GROUP 1700

REQUEST FOR RECONSIDERATION
TRANSMITTAL LETTER

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir: --

Enclosed is a reply for the above-identified patent application.

- ☐ A Petition for Extension of Time is also enclosed.
- ☐ A Terminal Disclaimer and a check for ☐ \$55.00 (2814) ☐ \$110.00 (1814) to cover the requisite Government fee are also enclosed.
- ☐ Also enclosed is _____.
- ☐ Small entity status is hereby claimed.
- ☐ Applicant(s) request continued examination under 37 C.F.R. § 1.114 and enclose the ☐ \$370.00 (2801) ☐ \$740.00 (1801) fee due under 37 C.F.R. § 1.17(e).
- ☐ Applicant(s) previously submitted __, on __, for which continued examination is requested.
- ☐ Applicant(s) request suspension of action by the Office until at least __, which does not exceed three months from the filing of this RCE, in accordance with 37 C.F.R. § 1.103(c). The required fee under 37 C.F.R. § 1.17(i) is enclosed.
- ☐ A Request for Entry and Consideration of Submission under 37 C.F.R. § 1.129(a) (146/246) is also enclosed.
- ☒ No additional claim fee is required.

☐ An additional claim fee is required, and is calculated as shown below:

AMENDED CLAIMS					
	NO. OF CLAIMS	HIGHEST NO. OF CLAIMS PREVIOUSLY PAID FOR	EXTRA CLAIMS	RATE	ADDT'L FEE
Total Claims		MINUS =		× \$18.00 (1202) =	
Independent Claims		MINUS =		× \$84.00 (1201) =	
If Amendment adds multiple dependent claims, add \$280.00 (1203)					
Total Amendment Fee					
If small entity status is claimed, subtract 50% of Total Amendment Fee					
TOTAL ADDITIONAL FEE DUE FOR THIS AMENDMENT					

☐ A claim fee in the amount of \$ _____ is enclosed.

☐ Charge \$ _____ to Deposit Account No. 02-4800.

The Commissioner is hereby authorized to charge any appropriate fees under 37 C.F.R. §§ 1.16, 1.17, 1.20(d) and 1.21 that may be required by this paper, and to credit any overpayment, to Deposit Account No. 02-4800. This paper is submitted in duplicate.

Respectfully submitted,

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

By: Robert G. Mukai
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Date: April 10, 2003



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REQUEST FOR RECONSIDERATION

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

In response to the Official Action dated January 10, 2003, applicants respectfully request reconsideration in light of the following discussion.

In the Official Action, the Examiner withdrew all the previous rejections on prior art grounds, but set forth a single rejection under the first paragraph of 35 U.S.C. §112. It was the Examiner's position that the phrase "at a temperature lower than the melting temperature of the water insoluble thermoplastic resin compound and equal to or higher than the melting temperature of the hydrophobic thermoplastic resin" did not find proper descriptive support in the specification.

The Examiner has correctly identified in the Official Action the standard for compliance of the description requirement under the first paragraph of 35 U.S.C. §112. This standard has been further explained in decisions such as *In re Kaslow*, 217 USPQ 1089, 1096 (Fed. Cir. 1983) where the court referenced the Boards's decision and

confirmed that "The test for determining compliance with the written description requirement is whether the disclosure of the application as originally filed reasonably conveys to the artisan that the inventor had possession of the claimed subject matter, rather than the presence or absence of literal support in the specification for the claim language." This test is an alternative way of stating the standard that was earlier annunciated by the CCPA in *In re Herschler*, 200 USPQ 711 (CCPA 1979) wherein the Court stated:

The claimed subject matter need not be described in *haec verba* to satisfy the description requirement. It is not necessary that the application describe the claim limitations exactly, but only so clearly that one having ordinary skill in the pertinent art would recognize from the disclosure that appellants invented processes including those limitations.¹

More recently, the Federal Circuit has stated in a decision which overturned a grounds of invalidation based on the first paragraph of 35 U.S.C. §112: "[T]he failure of the specification to specifically mention a limitation that later appears in claims is not a fatal one when one skilled in art would recognize upon reading the specification that the new language reflects what the specification shows has been invented."²

Based on a complete understanding of the present invention and an application of the proper standard for the description requirement of §112, applicants respectfully submit that the claims clearly meet the defined standard. Before concentrating on the specific quoted passage noted by the Examiner, applicants believe that it is important to obtain a general understanding of the present invention. For instance, as stated in the paragraphs beginning

¹ At page 717, citing *In re Smith*, 458 F.2d 1389, 173 USPQ 679 (CCPA 1972).

² *All Dental Prodx LLC v. Advantage Dental Products Inc.*, 64 USPQ2d 1945, 1948 (Fed. Cir. 2002), citing *Eiselstein v. Frank*, 52 F.3d 1035, 1039, 34 USPQ2d 1467, 1470 (Fed. Cir. 1995).

at page 2, line 14 and 18, one object of the invention is to provide a resin composition and a laminate which contain a reducing organic compound which makes it possible to safely package and store liquid food for a long period. The resin composition is obtained by melt kneading a hydrophilic reducing organic compound (later referred to as the "A component") alone or with a porous inorganic compound (later referred to as the "D component") with a hydrophilic and water insoluble thermoplastic resin (later referred to as the "B component") and then by dispersing the resultant material in a hydrophobic thermoplastic resin (later referred to as the "C component"). This understanding is supplemented by the paragraph beginning at page 6, line 1, which sets forth the sequence of kneading the A component and B component and then kneading the resultant material into the C component. The function of the defined components is explained with greater precision in the paragraph beginning at the top of page 12. As stated therein, the A component is protected by the B component that has an oxygen gas barrier characteristic and is prevented from being consumed by the surrounding oxygen, so that it maintains its oxygen absorbing capability. The presence of water gradually permeates through the C component and reaches the B component dispersed therein, the B component loses its oxygen barrier characteristics whereby the A component exhibits an oxygen absorbing function.³

³ The undersigned attorney has been informed that a more appropriate translation of the phrase "whereby the A component included therein" found at page 12, lines 7-8 is -- whereby the A component covered thereby-- which further confirms a proper understanding of the invention.

Illustrative embodiments of the present invention are illustrated in the Examples. For instance, in Embodiment 1 set forth at the bottom of page 15, 5 parts by weight of ascorbic acid (the A component) and 95 parts by weight of an ethylene-vinyl alcohol polymer (the B component) were supplied to a dual extruder and kneaded and extruded in the form of pellets. Next, the pellets are mixed with a low-density polyethylene (the C component) and again kneaded to form pellets which are ultimately tested as described in the specification. It is noted that the melting temperature of the ethylene-vinyl alcohol copolymer is stated as being 160°C and applicants have previously provided dictionary evidence that low density polyethylene has a melting point on the order of 116°C.

The description on page 6 starting at line 8 provides a further understanding of the present invention. As stated therein, the kneading of the A component and B component are preferably carried out at a temperature not higher than the melting point or decomposition point of the A component and not lower than the melting temperature of the B component. What this means is that the A component is maintained in solid form while the B component melts and can form a layer surrounding the A component thereby forming a dispersion of the A component in the B component. The specification continues on line 20 by describing that the kneaded compound comprised of the A component and the B component is kneaded with and dispersed in the C component to obtain the resin composition. It is stated that the kneading of the C component is preferably carried out at a temperature not lower than the melting temperature of the C component "in the same manner" as the kneading of the A component and the B component. In other words, similar to the understanding that the first kneading step is to be conducted at a temperature

not higher than the melting point of the A component and not lower than the melting temperature of the B component, it follows that the kneading with the C component is to be conducted at a temperature lower than the melting temperature of the water insoluble thermoplastic resin compound (the B component) and equal to or higher than the melting temperature of the hydrophobic thermoplastic resin (the C component) in order for the kneading to be conducted "in the same manner" as the kneading of the A component and the B component.

Analyzing this situation in a slightly different way, and with specific reference to the aforementioned Embodiment 1, the melting temperature T_B of component B is lower than the melting temperature T_A of component A. That is,

$$T_B < T_A$$

The aforementioned description in the passage from page 15, line 23 to page 16, line 2 states that the melting temperature of the component B is 160°C, and the fact that the melting temperature of the low-density polyethylene (component C) is around 116°C, the melting temperature T_C of component C is lower than the melting temperature T_B of component B. That is,

$$T_C < T_B$$

Thus,

$$T_C < T_B < T_A$$

From the aforementioned description on page 6, lines 8-12, the specification discloses that the kneading of the components A and B are carried out at a temperature T between T_B and T_A . That is,

$$T_B < T < T_A$$

With this method of kneading, the component A is covered by the component B so that the component A is protected by the component B (see the description on page 12, lines 1-3)

From the description on page 6, lines 22-26 also referred to above, the specification discloses that the kneading of the kneaded component (i.e., A and B) and the C component is carried out at a temperature greater than the melting temperature of the C component (i.e., $T_C < T$) in the same manner as the kneading of the A component and B component.

Here, "in the same manner" means that the kneading of the kneaded component (i.e., A and B) and the C component is carried out a temperature T between T_C and T_B . That is,

$$T_C < T < T_B$$

In particular, the kneading temperature T is lower than the melting temperature of the B component (i.e., $T < T_B$).

If the kneading temperature T is greater than the melting temperature of the B component (i.e., $T_B < T$), the components B melts again during the second kneading process so that the component A and component B are independently dispersed in the component C, and the protection of the component A by the component B mentioned above is degraded. Such result would be inconsistent with the description about the function of this material on page 12, lines 1-3 ("Namely, before filling the contents, the A component is protected by the B component that has an oxygen gas barrier characteristics and is prevented from being consumed by the surrounding oxygen").

Thus, the second kneading temperature T must be lower than the melting temperature of the B component (i.e., $T < T_B$).

Accordingly, for all of the reasons set forth above, applicants respectfully submit that the quoted phrase set forth in the Official Action is properly described in the specification and that the claims of record fully comply with the provisions of the first paragraph of 35 U.S.C. § 112. Therefore, reconsideration and allowance of the present application are respectfully requested.

Should the Examiner wish to discuss any aspect of the application, he is invited to contact the undersigned attorney at the number provided below.

Respectfully submitted,

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

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